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CVP CAS modeling questions

3 messages

Dana Jacobson <DJacobson@valleywater.org> Thu, Feb 20, 2014 at 3:14 PM
To: "bmillerlevy@usbr. gov (bmillerlevy@usbr.gov)" <bmillerlevy@usbr.gov>

Hi Brooke,

Following up on today's telephone call, I'm writing to ask a few questions and get some clarification on how the various models will be used to assign benefits so that I can better understand the process. I also wanted to make a couple of suggestions. I don't expect answers to everything immediately but I just wanted to get some of my concerns into the discussion.

Ultimately, it would be great if we could use the same metrics to calculate monetary benefits for both irrigation and M&I water supply so that there is a level playing field. But I understand why this is not possible and the models being considered (CalSim2, CMDM, SWAP) are well known and as justifiable as any.

As we discussed, because the CMDM uses a willingness to pay basis, M&I water will be valued higher. This is probably fair. The description of CMDM in the fact sheet on your website indicates that M&I benefits are measured by comparing the implicit price of water use with and without the project. Is this also the case in the SWAP model?

My understanding of the SWAP model is that it can be calibrated with various alternative water sources. In this case groundwater would likely be the first available option. I also understand that the model can be calibrated to account for varying groundwater levels and the increase in cost resulting from groundwater level declines. I would recommend that Reclamation tie SWAP to a groundwater model so that groundwater level changes resulting from shortages in CVP deliveries can be tracked. I think that when SWAP was used for a calculation of agricultural benefits in the context of BDCP, the assumption was that groundwater would be available as an alternative supply source for irrigators indefinitely and in unlimited capacity. As we have seen over the last couple of dry years, this assumption is not valid. After all, one of the justifications for the construction of the CVP was groundwater overdraft in the San Joaquin valley. So I don't think that we should take the same approach in the CAS. Whatever alternative source that could be available as a marginal supply for irrigators would likely be cost prohibitive for that purpose. I am wondering if there is any way to monetize this, because I'm concerned that the CVP deliveries are undervalued, which could shift a disproportionate amount of costs to the M&I purpose.

I'm still trying to wrap my head around all this so please correct me if I'm not understanding something.

Dana